SBIR/STTR Programs

Small Business Innovation Research
Small Business Technology Transfer

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Agenda

- Federal SBIR/STTR Program - What is it
- Information on 11 agency programs and contacts
- NASA 2007 Solicitation Information
- Why Participate in SBIR

Federal SBIR Program

- 11 Federal Agencies
- $2.5 Billion Program in FY06
- Multiple Solicitation Dates

SBIR Program Funding

PL 106-554

• All Federal Agencies with an Extramural* R&D Budget of over **$100M (SBIR) or $1B (STTR)** must participate in the SBIR and STTR Programs.

• Participating SBIR Agencies must reserve **2.5%** of their extramural R&D budget for SBIR and **0.3%** for STTR. Only 6 agencies, DoD, NIH, NASA, DoE, NSF, and DHS participate in the STTR program.

***Extramural budget** is agency R&D (including FFRDCs and contractor operated facilities) less funds for government owned and operated facilities.

What is SBIR?

SBIR is a Congressionally Mandated Program for small businesses to:

- Stimulate technological innovation
- Increase private sector commercialization of federal R&D
- Increase small business participation in federally funded R&D
- SBIR is the largest source of early-stage technology financing in the U.S.

Three Phase Program

	SBIR	STTR
Phase I Project Feasibility	6 months up to $100K	6-12 months up to $100K
Phase II Project Development To Prototype	2 yrs up to $750K	2 years up to $750K
Phase III Commercialization	non-SBIR/non-STTR funds	

* Duration and funding limits are variable by agency

How do you Qualify for SBIR?

- Small Business of 500 or fewer employees
- Principal Investigator must spend more than 1/2 of their time employed by the proposing firm
- During Phase I, a minimum of 2/3 effort must be performed by the proposing firm
- During Phase II, a minimum of 1/2 of the effort must be performed by the proposing firm
- Work must be performed in the United States

What is STTR

The Small Business Technology Transfer Program is a Congressionally Mandated Program for small businesses to:

- Move ideas from research institutions to market
- Enable researchers to pursue commercial application of technologies
- Bridge the funding gap between basic research and commercial products

How do you Qualify for STTR?

- Small business must perform a minimum of 40% of the work; research institution a minimum of 30%

- Research institution is a FFRDC, college or university, or non-profit research institution; no size limit on research institution;

- Small business must manage and control the STTR funding agreement

- Principal Investigator may be at the small business or research institution

- Small Business of 500 or fewer employees

SBIR/STTR Patent Rights

- Small businesses retain intellectual property rights

- Government receives royalty-free license for use of world wide patent rights to any invention development

- STTR must have written agreement allocating intellectual property rights among participants

SBIR/STTR Solicitation Dates

Solicitation Dates May Change! - check the Agency specific website

2006 Solicitation	Open	Close
Homeland Security	Sep	Nov
National Science Foundation	Aug	Oct
DoD STTR	Jan 22	Mar 21
DoD 2007.2	Apr 12	Jun 13
DoD 2007.3	Jul 19	Sep 19
NASA	Jul 6	Sep 6
DOT	Feb 15	May 1
EPA	Mar 22	May 23
DOE	Sep	Nov
DoD	Nov	Dec
NIH	Jan 16	4/05; others

Others - Solicitations dates are listed on http://www.sba.gov/
and http://www.dodsbir.net/solicitation/

Agency Programs are all . . . different



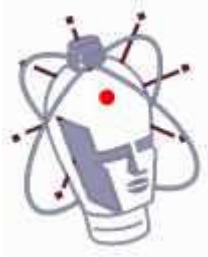






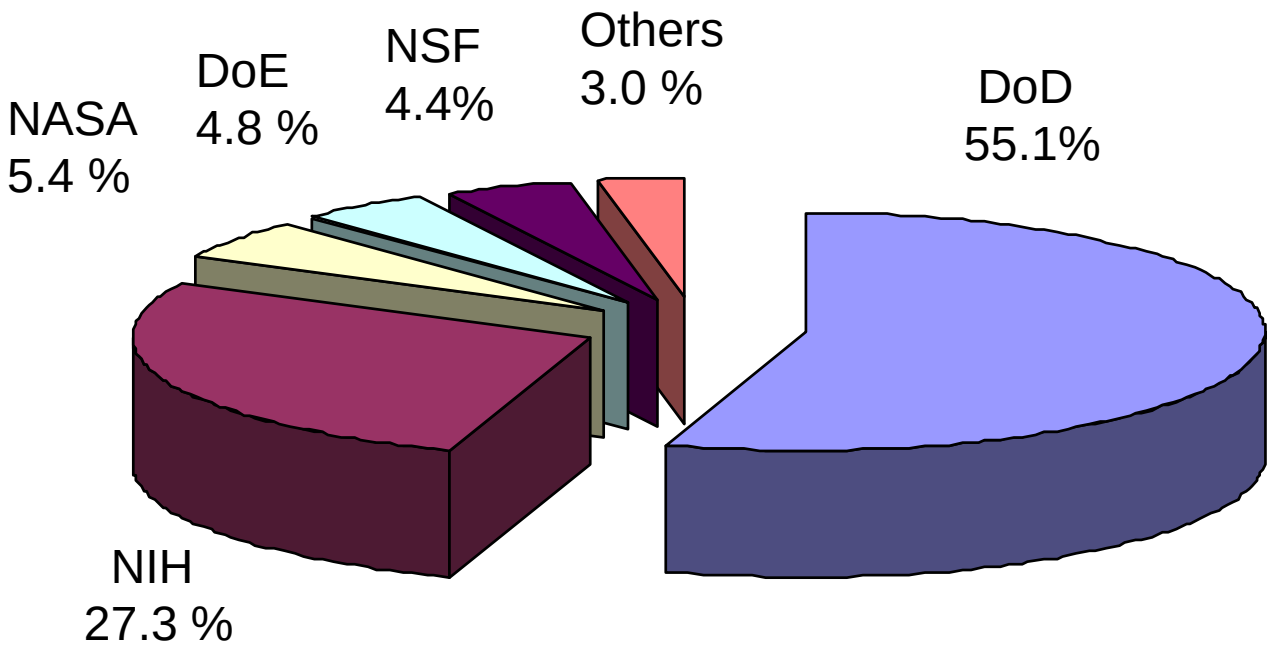








SBIR/STTR Agency Funding
FY 2006 $2.3 Billion



DoD SBIR Points of Contact

DoD Program Manager –
Mr. Michael Caccuitto (703) 604-0157

Air Force - Mr. Steve Guilfoos (937) 656-9021

Navy - Mr. John Williams (703) 696-0342

Army - Ms. Susan Nichols (703) 806-0859

DARPA - Ms. Connie Jacobs (703) 526-4162

Missile Defense Agency - Mike Zammit (703) 553-3408

DHS - Elisa I. Sobolewski (202) 254-6768

DoD SBIR Points of Contact

DOT - Joseph Henebury (617) 494-2370

DOE - Julie Scott (301) 903-1414

NSF - Rosemarie Wessen (703) 292-7070

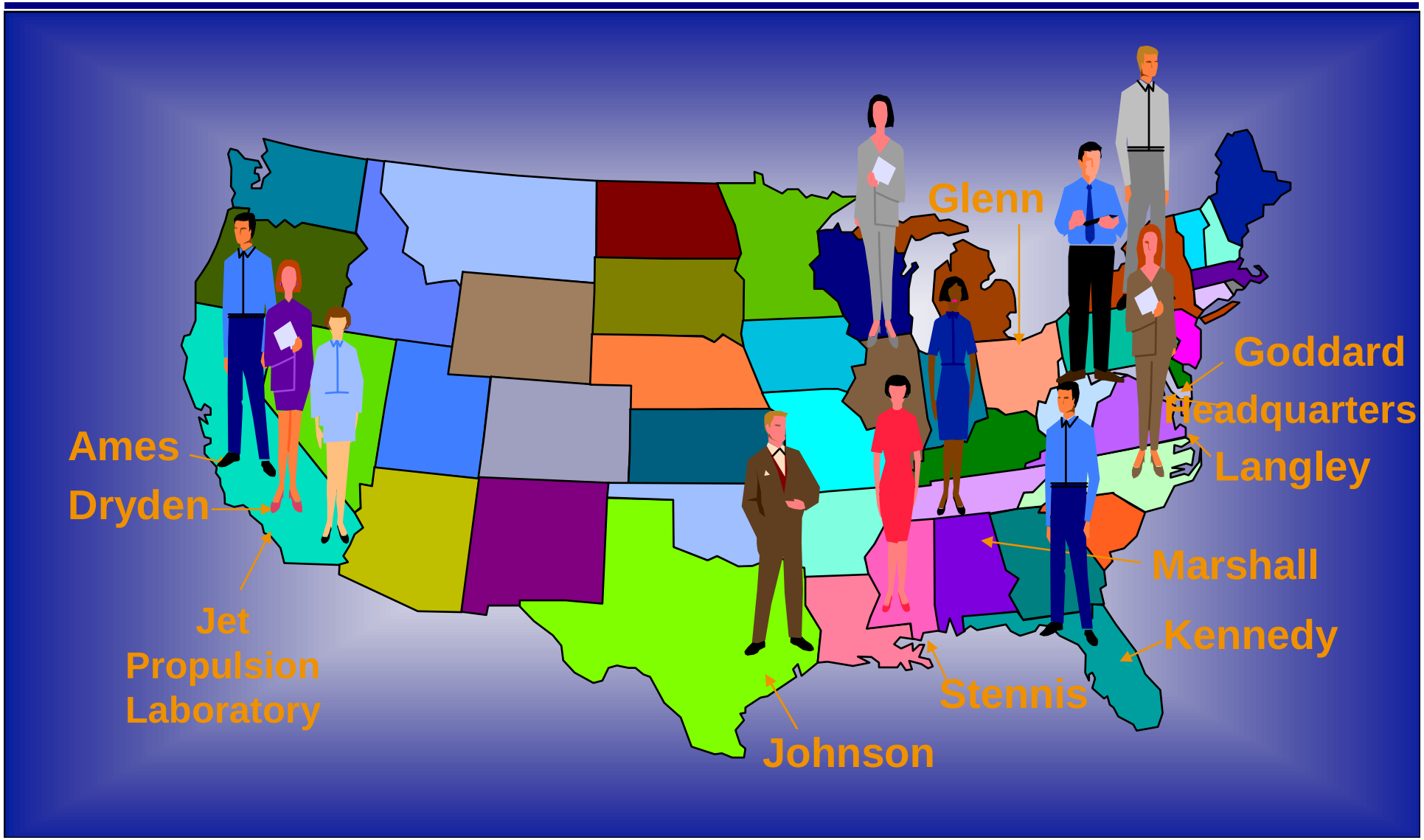
EPA - Marsha Johnson (919) 541-0952

USDA - Charles F. Cleveland (202) 401-4002

NOAA - Joseph Bishop (301) 713-4100

Education - Edward Metz (202) 208-1983

All Ten NASA Centers Participate In the SBIR Program



NASA Center Contacts

Ames Research Center - Geoff Lee, 650-604-6406
Information Technology (automation, planning, simulation)
Air Traffic Management Systems

Dryden Flight Research Center - Ron Young, 661-276-3741
Atmospheric Flight Concepts, Flight Dynamic Systems Characterization,
Flight Sensors and Airborne Instruments for Flight Research

Kennedy Space Flight Center - Chuck Griffin, 321-867-6225
Space Transportation, Space Operations, Launch Site Technologies

Langley Research Center - Bob Yang, 757-864-8020
Materials, Structures, Systems Analysis
Lidar Remote Sensing

Glenn Research Center - Gynelle Steele, 216-433-8258
Power, Propulsion, Communications

NASA Center Contacts

Goddard Space Flight Center - Jim Chern, 301-286-5836
- Optics, GN&C, Sensors & Detectors, Thermal Control
- Data Management and Visualization

Jet Propulsion Laboratory - Wayne Schober, 818-354-8581
- In-situ Sensors and Robotics, Active Microwave, Sensors & Detectors, Communications, Astronomical Observatories Technology

Johnson Space Flight Center - Kevin Lee, 281-483-5013
- Human Systems Research, Life Support and Habitation, Human Systems Integration, In-situ Resource Utilization,

Marshall Space Flight Center - Helen Stinson, 256-544-1810
- Chemical Propulsion, Cryogenic Telescope Components, Low Thrust and Propellantless Technologies, Particles and Fields

Stennis Space Flight Center - Ray Bryant, 228-688-3964
- Geospacial Data Analysis Processing and Visualization Technologies
- Rocket Propulsion Testing Systems

NASA Organization

Four Mission Directorates:

1. **Aeronautics Research (www.aerospace.nasa.gov)**
2. **Exploration Systems (www.exploration.nasa.gov)**
3. **Science (www.science.hq.nasa.gov)**
4. **Space Operations (www.hq.nasa.gov/osf)**

NASA Directorate Interests

- **Aeronautics Research (www.aerospace.nasa.gov)**
  - **Aviation Safety and Security**
  - **Vehicle Systems**
  - **Airspace Systems**
  - **Aeronautics Test Technology**

- **Exploration Systems (www.exploration.nasa.gov)**
  - **Moon Initiative Technology Support**
  - **Power**
  - **Propulsion**
  - **Biological Sciences**

NASA Directorate Interests

- **Science (www.science.hq.nasa.gov)**
  - **Earth Science**
  - **Solar System Exploration**
  - **Telescopes**
  - **Sensors and Detectors**
  - **Helioscience**
  - **Spacecraft Technologies**

- **Space Operations (www.hq.nasa.gov/osf)**
  - **Communications**
  - **Operations**

NASA FY06 Solicitation
Science

Topic S1 Sensors, Detectors, and Instruments

S1.01 Lidar System Components
S1.02 Active Microwave Technologies
S1.03 Passive Microwave Technologies
S1.04 Sensor and Detector Technology for Visible, IR, Far IR and Submillimeter
S1.05 Detector Technologies for UV, X-Ray, Gamma-Ray and Instruments
S1.06 Particles and Field Sensors and Instrument Enabling Technologies
S1.07 Cryogenic Systems for Sensors and Detectors
S1.08 In Situ Airborne, Surface, and Submersib le Instruments for Earth Science
S1.09 In Situ Sensors and Sensor Systems for Planetary Science

Topic S2 Advanced Telescope Systems

S2.01 Precision Spacecraft Formations for Telescope Systems
S2.02 Proximity Glare Suppression for Astronomical Coronography
S2.03 Precision Deployable Optical Structures and Metrology
S2.04 Optical Devices for Starlight Detection and Wavefront Analysis
S2.05 Optics Manufacturing and Metrology for Telescope Optical Surfaces

NASA FY06 Solicitation
Science

Topic S3 Spacecraft and Platform SubSystems

S3.01 Avionics and Electronics
S3.02 Thermal Control Systems
S3.03 Power Generation and Storage
S3.04 Propulsion Systems

Topic S4 Low-Cost Small Spacecraft and Technologies

S4.01 NanoSat Launch Vehicle Technologies
S4.02 Secondary and Tertiary Launch Technologies
S4.03 Low-Cost, Rapid Spacecraft Design and Multi-Subsystem Functionality
S4.04 Project Management, Systems Engineering and Mission Assurance Tools
S4.05 Smart, Autonomous Command and Data Handling system, Algorithms and Data Management
S4.06 Mini-Micro Thrusters, LOX/Hydrocarbon Propulsion, and Attitude Control Systmes
S4.08 Low-Cost Assembly, Integration, and Testing
S4.09 Autonomous Multi-Mission Virtual Ground and Spacecraft Operations

NASA FY06 Solicitation
Science

Topic S5 Robotic Exploration Technologies

S5.01 Extreme Environments Technology
S5.02 Planetary Entry, Descent and Landing Technology
S5.03 Sample Collection, Processing, and Handling Devices
S5.04 Surface and Subsurface Robotic Exploration
S5.05 Planetary Balloons and Aerobots

Topic 6 Information Technologies

S6.01 Modeling, Si8mulation and Analysis Technologies
S6.02 Technologies for Large-Scale Numerical Simulations
S6.03 On-Board Data Processing and Control
S6.04 Data Analyzing and Processing Algorithms
S6.05 Data Management - Storage, Mining and visualization
S6.06 Spatial and Visual Methods for Search, Analysis and Display of Science Data

Selection Process

NASA Phase I Evaluation Criteria:

1. Scientific/Technical Merit and Feasibility (50%)
2. Experience, Qualifications and Facilities (25%)
3. Effectiveness of the Proposed Work Plan (25%)
4. Commercial Potential and Feasibility (adjectival)

SBIR/STTR Program Schedule

2006 Program Solicitation

Opening Date: 07/06/2007
Closing Date: 09/06/2007
Selections: Nov. 2007

http://sbir.nasa.gov

Why Participate in SBIR/STTR?

1. Over $2.5 Billion available every year
2. Funds are NOT A LOAN - no repayment - up to $850K capital
3. Small businesses retain intellectual property rights
4. Provides seed money to fund high risk projects
5. Develop working relationship & credibility with government R&D
6. Fosters partnerships with large corporations and academia
7. Provides recognition and visibility for your business
8. Participation attracts venture capital and other funding sources

For Further Information

- Read the web sites - they are good

- Search on sbir and an agency name e.g.
sbir nasa,
sbir air force,
sbir sba

- Call one of the agency contact names; call me

- Use the keyword search to find related topics at: http://www.dodsbir.net/topics/default.asp for the DoD solicitation